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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOEL D. MARTZ

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Appeal 2008-3416  
Application 10/830,176  
Technology Center 1700

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Decided: June 30, 2008

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Before BRADLEY R. GARRIS, CHARLES F. WARREN, and  
JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner finally rejecting claims 1 through 13 in the Office Action mailed March 23, 2006. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2006).

We affirm the decision of the Primary Examiner.

Claim 1 illustrates Appellant's invention of a film coated microporous membrane, and is representative of the claims on appeal:

1. A coated microporous membrane comprising a microporous membrane with a coating of breathable material which augments a liquid penetration resistance of the membrane while maintaining transport of moisture vapor, wherein the coating is a film.

The Examiner relies upon the evidence in this reference (Ans. 2):

von Fragstein 6,074,738 Jun. 13, 2000

Appellant requests review of the ground of rejection of the claims 1 through 13 under 35 U.S.C. § 103(a) over von Fragstein advanced on appeal. Br. 5; Ans. 3.

Appellant argues the claims as a group. Br. 6-7. Thus, we decide this appeal based on claim 1 as representative of Appellant's groupings of claims and on other claims to the extent reflected in arguments in the Brief. 37 C.F.R. § 41.37(c)(1)(vii) (2006).

The principal issue in this appeal is whether the Examiner has carried the burden of establishing a prima facie case of obviousness which, of course, turns on the issues addressed below.

The issues require that we first interpret the language of claim 1 by giving the terms thereof the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art, in light of the written description in the Specification unless another meaning is intended by Appellant as established therein, and without reading into the claim any disclosed limitation or particular embodiment. *See, e.g., In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004), and cases cited therein; *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997). The open-ended, transitional term “comprising” opens the claim

to include additional material. *See, e.g., Exxon Chem. Pats., Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) (“The claimed composition is defined as comprising - meaning containing at least - five specific ingredients.”); *In re Baxter*, 656 F.2d 679, 686 (CCPA 1981) (“As long as one of the monomers in the reaction is propylene, any other monomer may be present, because the term ‘comprises’ permits the *inclusion* of other steps, elements, or materials.”).

The plain language of claim 1 specifies any coated microporous membrane comprising at least any microporous membrane coated to any extent with any material in the form of a film which is breathable at least to the extent it provides liquid penetration resistance while transporting moisture vapor. We do not find a specific definition of the term “film” in the Specification. Thus, we determine this term has its ordinary meaning to those of ordinary skill in this art of a “thin continuous sheet of a substance” without limitation on the film material.<sup>1</sup> The film can be formed from, among other things, any kind of urethane polymer (claim 2) and can be coated on any manner of microporous membrane, such as, among other things, any manner of polytetrafluoroethylene (PTFE) (claims 3 and 4), to any extent (claim 12). Indeed, we find no basis in the claim language or in the disclosure in the Specification on which to read into the claim term “film” the particular characteristics disclosed with respect to particular embodiments in the Specification as Appellant contends. *Br.*, e.g., 7:18-21. *See, e.g., In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

We find von Fragstein would have disclosed to one of ordinary skill in this art a flexible water resistant composite in which layer (b) of air-impermeable, liquid water resistant, water-vapor molecule permeable polymer is coated as a film on layer (a) of liquid water-resistant, water-vapor permeable microporous polymer. von Fragstein, e.g., Abstract, and col. 2, l. 21, to col. 6, l. 67. von Fragstein would have evinced that expanded polytetrafluoroethylene (ePTFE) and polyurethanes have been used separately to provide water impermeable, water-vapor permeable coatings for textiles. von Fragstein col. 1, ll. 16-30. von Fragstein would have evinced that it was known in the prior art that air-impermeable, water vapor permeable, monolithic coatings of polyetherpolyurethane on microporous structures are films and should be applied in a manner to provide adequate impermeable and permeable properties. von Fragstein col. 1, ll. 31-45.

von Fragstein would have disclosed that microporous polymer film layer (a) can be, among other things, porous ePTFE film. von Fragstein, e.g., col. 2, ll. 49-51. von Fragstein would have disclosed that microporous polymer layer (a) can be rendered oleophobic before or after polymer film layer (b) is coated thereon. von Fragstein, e.g., col. 2, ll. 56-65, col. 3, ll. 54-67, and col. 5, ll. 59-61. "The layer thicknesses, densities and pore sizes of the ePTFE layers used can vary, depending on the application." von Fragstein col. 6, ll. 43-44.

von Fragstein would have disclosed that polymer film layer (b) can be a polyurethane which is very thin and serves as a support and barrier layer,

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<sup>1</sup> See, e.g., **film**, *Hawley's Condensed Chemical Dictionary* 496 (13th ed., Richard J. Lewis, Sr., revisor, New York, Van Nostrand Reinhold Company,

and can be applied by several methods. von Fragstein col. 5, ll. 30-64. An example of polyurethane is Hypol® 2000 which can be applied pre-crosslinked or can be crosslinked after application. von Fragstein col. 5, ll. 64-67.

von Fragstein would have illustrated in Example 1 a film composite with ePTFE film coated with Hypol® 2000 prepolymer and a curing agent which form a polyurethane film upon curing, wherein the ePTFE film was not rendered oleophobic. The two film layer composite had a higher moisture vapor transmission rate (MVTR) than a similar two film layer composite in which the ePTFE film was rendered oleophobic. von Fragstein col. 8, ll. 6-44. The use of another polyurethane prepolymer to provide a polyurethane film layer is illustrated in Examples 3 and 11. von Fragstein col. 9, ll. 11-32, and col. 11, ll. 18-42. In Example 11, the polyurethane film layer “was applied and partially penetrated into the microporous structure of the film using a roll coating device.” von Fragstein col. 11, ll. 22-26.

We determine von Fragstein, the scope of which we determined above, provides sufficient evidence supporting the Examiner’s case that the claimed coated microporous membranes encompassed by claim 1, as we interpreted this claim above, would have been prima facie obviousness to one of ordinary skill in the film composite arts familiar with permeable and impermeable film layers for such composites and the uses for such composites. Ans. 3. We are reinforced in our view by the disclosure of the same microporous membrane ePTFE film layer materials and urethane film

layer materials by von Fragstein as claimed by Appellant in claims 3 and 4 and claim 2, respectively. Indeed, the film composites illustrated in von Fragstein Examples 1, 3, and 11 reasonably appear to be identical to the claimed film composites encompassed at least by claims 1 through 4 and 12 as we interpreted these claims above. We point out in this respect that it is well settled that “anticipation is the ultimate of obviousness.” See *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed Cir. 1991), citing *In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982).

We reach this determination even though we recognize that von Fragstein does not disclose properties for the film composites disclosed and illustrated therein that are specified in claims 8 through 11. However, the description of the claimed coated microporous membrane by properties not disclosed by von Fragstein does not patentably distinguish the claimed coated microporous membranes encompassed by the claims over the identical and substantially identical coated microporous membranes of the reference in view of the disclosure of the identical PTFE and polyurethane materials by Appellant and by von Fragstein. See, e.g., *In re Skoner*, 517 F.2d 947, 950-51 (CCPA 1975) (“Appellants have chosen to describe their invention in terms of certain physical characteristics . . . Merely choosing to describe their invention in this manner does not render patentable their method which is clearly obvious in view of [the reference].” (citation omitted)). With respect to the embodiments of von Fragstein Examples 1, 3, and 11 which reasonably appear to be identical to the claimed coated microporous membranes, it is well settled that Appellant’s discovery of a new property of a product does not render the old product

again patentable simply because those practicing the product may not have appreciated the property. *See, e.g., In re Spada*, 911 F.2d 705, 707 (Fed. Cir. 1990); *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 782-83 (Fed. Cir. 1985).

In this respect, we are of the opinion that one of ordinary skill in the art would have recognized that, as evinced and disclosed by von Fragstein, the thickness, density, and pore size of the microporous membrane ePTFE film and the properties and thickness of the polyurethane film as well as other materials used in the composite, would affect the properties of the composite, as the Examiner points out. Ans. 3-4. Indeed, von Fragstein illustrates this point in Example 1 by the difference in MVTR between a composite rendered oleophobic and a composite not treated in this respect. Thus, we agree with the Examiner that this person would have adjusted film characteristics to obtain the desired impermeable and permeable properties, including the dimensions encompassed by claims 5 through 7 and 13. *See, e.g., In re Aller*, 220 F.2d 454, 456-58 (CCPA 1955) (it is not inventive to discover by routine experimentation optimum or workable ranges for general conditions disclosed in the prior art).

Accordingly, on this record, we determine that, prima facie, the claimed coated microporous membranes encompassed by the claims reasonably appear to be identical or substantially identical to the coated microporous membranes disclosed in von Fragstein, even though the claimed film characteristics and microporous membrane properties are not disclosed per se by the reference. Thus, the burden shifts to Appellant to establish by effective argument and/or objective evidence that the claimed



products patentably distinguish over the disclosure of von Fragstein even though the ground of rejection is under § 103(a). See, e.g., *Spada*, 911 F.2d at 708-09 (“The Board held that the compositions claimed by Spada ‘appear to be identical’ to those described by Smith. While Spada criticizes the usage of the word ‘appear’ we think that it was reasonable for the PTO to infer that the polymerization by both Smith and Spada of identical monomers, employing the same or similar polymerization techniques, would produce polymers having the identical composition.”); *In re Best*, 562 F.2d 1252, 1255-56 (CCPA 1977) (“Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. See *In re Ludtke*, [441 F.2d 660 (CCPA 1971)]. Whether the rejection is based on “inherency” under 35 U.S.C. § 102, on “prima facie obviousness” under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products. (footnote and citation omitted)); *Skoner*, 517 F.2d at 950-51.

Upon reconsideration of the record as a whole in light of Appellant’s contentions, we are of the opinion that Appellant has not successfully rebutted the prima facie case. We have again considered Appellant’s contentions with respect to the term “film” (Br., e.g., 6-13) but remain of the opinion expressed in our interpretation of the claims above. Indeed, on this record, we find no difference in the use of this term by Appellant and by von

Fragstein. In this respect, and contrary to Appellant's contention (Br. 12), the oleophobic polymer coating applied by von Fragstein provides a film layer to microporous film layer (a), with the resulting composite containing a polyurethane film layer (b) encompassed by the appealed claims because of the transitional term "comprising." In any event, von Fragstein describes a composite without the oleophobic coating in Example 11. We further find in the record no evidence to support Appellant's contentions that there is a difference between the structure of the composite films formed by von Fragstein's methods and by Appellant's methods, and that the claimed film forming materials are not disclosed in von Fragstein. Br. 13-14. Indeed, Appellant has not established as a matter of fact any difference(s) in the materials claimed and disclosed in the Specification and disclosed in von Fragstein, or in the composite structures resulting from the coating of a polyurethane film onto microporous ePTFE as described in the Specification and in von Fragstein.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in von Fragstein with Appellant's countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 1 through 13 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

The Primary Examiner's decision is affirmed.

Appeal 2008-3416  
Application 10/830,176

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tf/ljs

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